

Interpretive Hydrogeology of the Middle Wind River Basin, Skamania County, Washington

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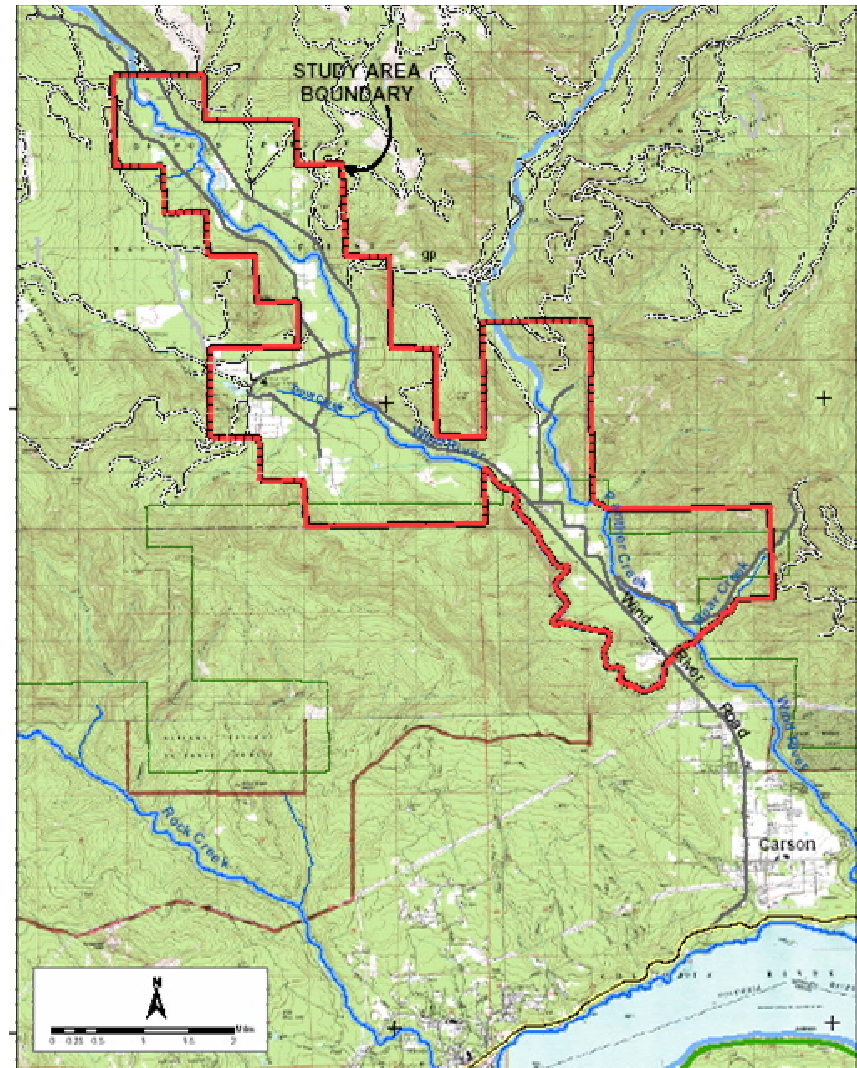
Hydrogeology of the Middle Wind River Basin, Skamania County

Objective:

- u **Interpret area hydrogeology to provide planning level information and tools for future development decisions**

Hydrogeology of the Middle Wind River Basin, Skamania County

**Study Area is
primarily
unincorporated land
bordered by the
Gifford Pinchot
National Forest**

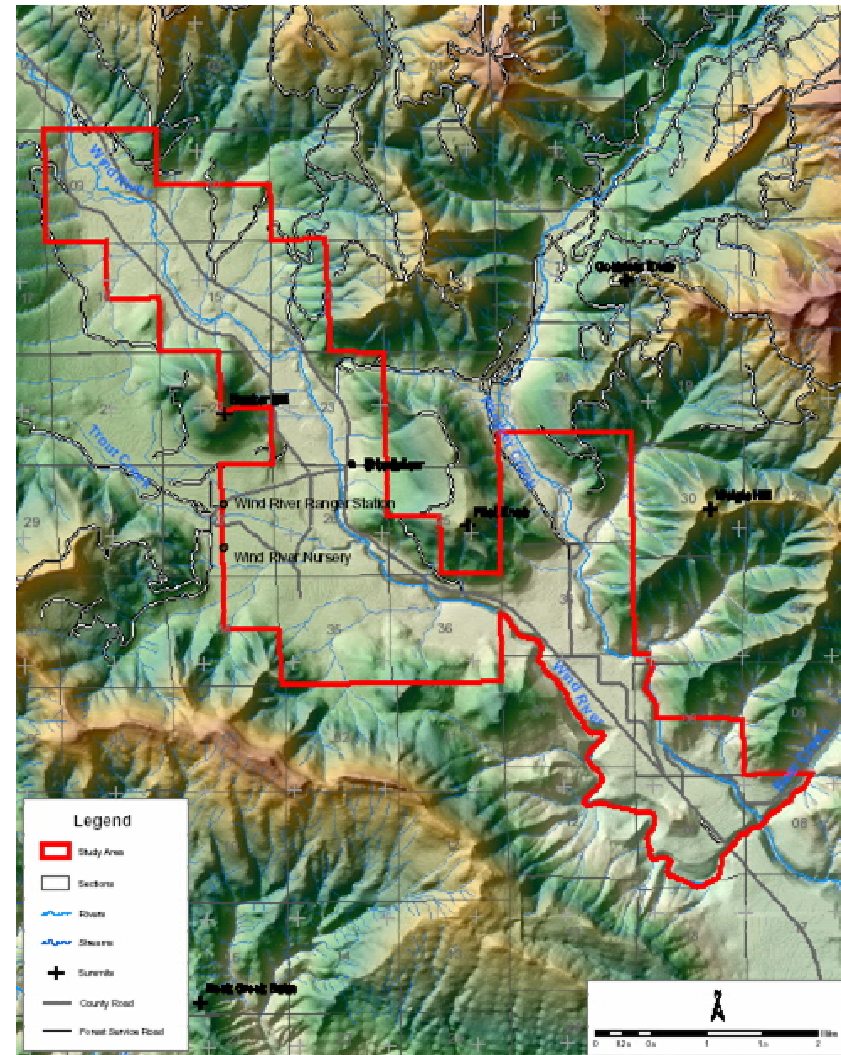


Hydrogeology of the Middle Wind River Basin, Skamania County

Surface Water Features:

- u Wind River
- u Trout Creek
- u Panther Creek

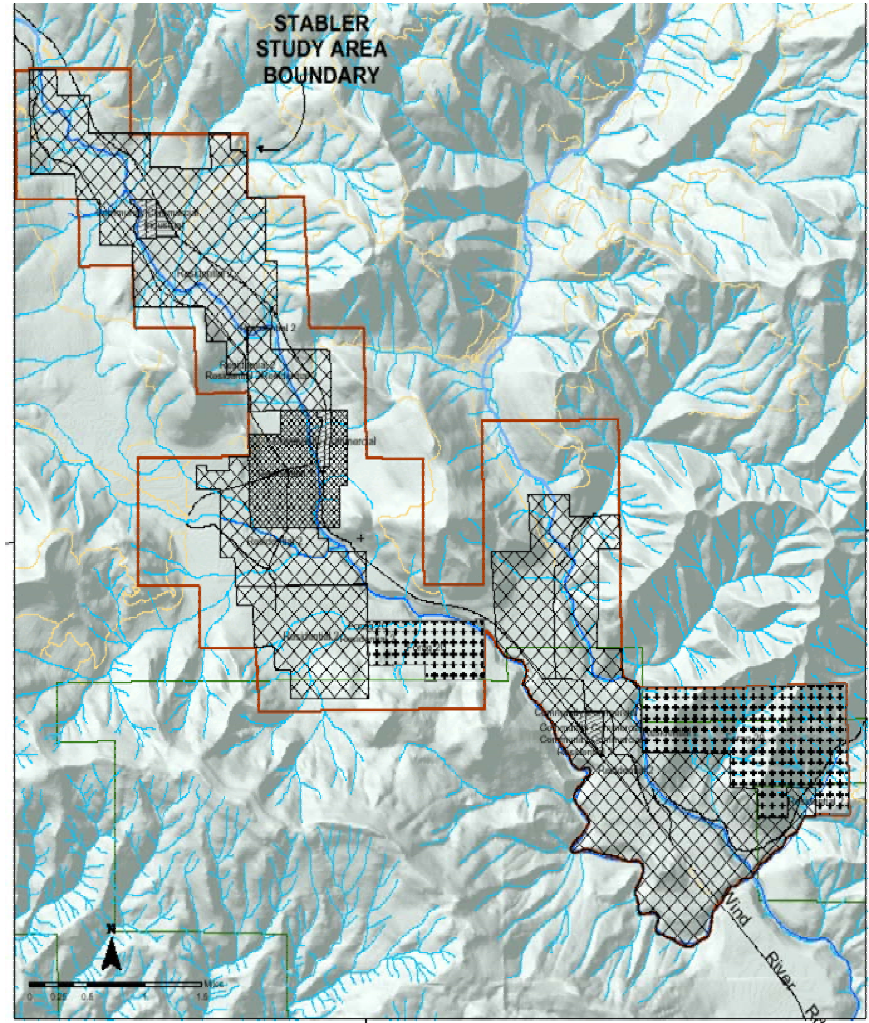
Station	Month	Flow (cfs)
Wind R. Above Tr. Cr	Sep.	101
Panther Ck.	Sep	64
Wind River at Carson	Sep.	235
Tr. Cr.	Sep	25/19
	Aug	19/13



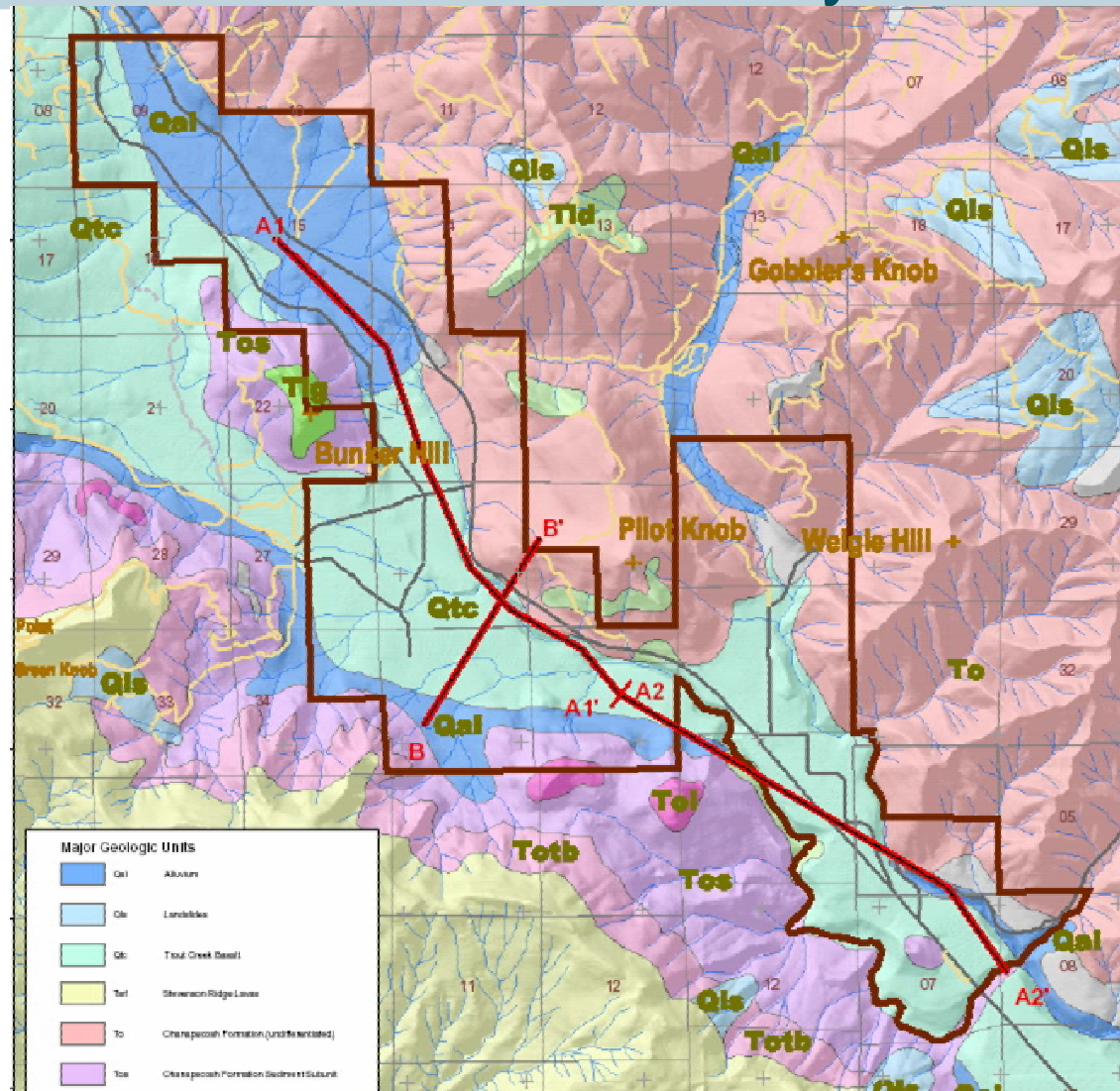
Hydrogeology of the Middle Wind River Basin, Skamania County

Land Use Characteristics:

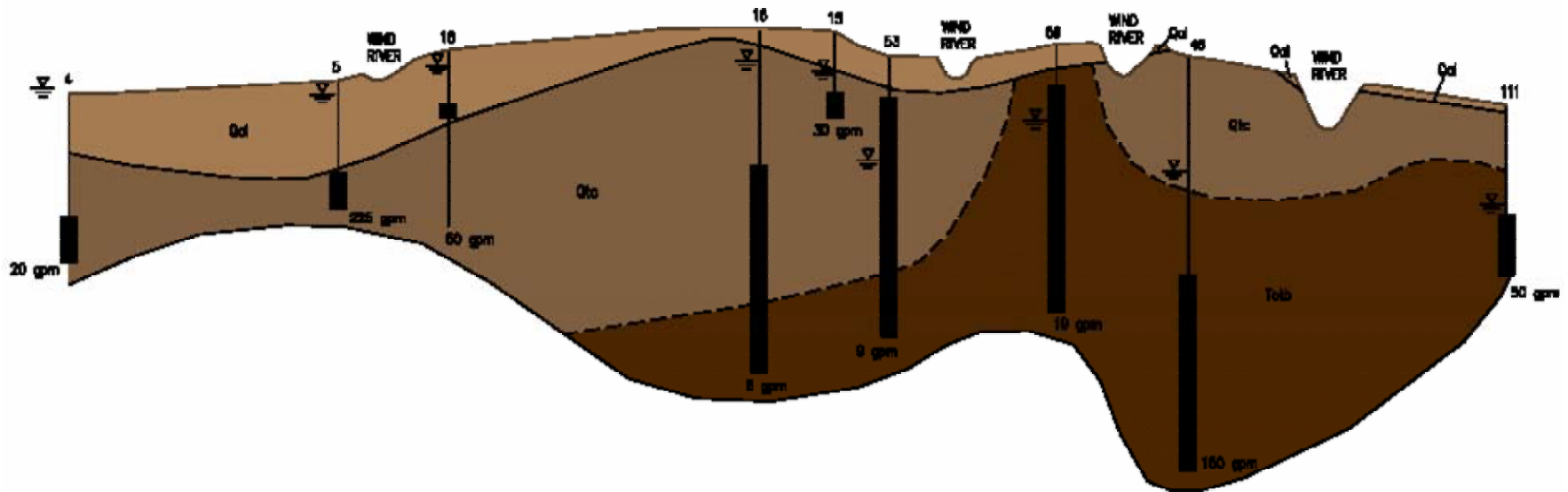
- Current Population is ~2,000 (1/4+ in Stabler)
- Expected growth = 50% over next 20 yrs
- Zoned residential, commercial, and forest/ag



Hydrogeology of the Middle Wind River Basin, Skamania County

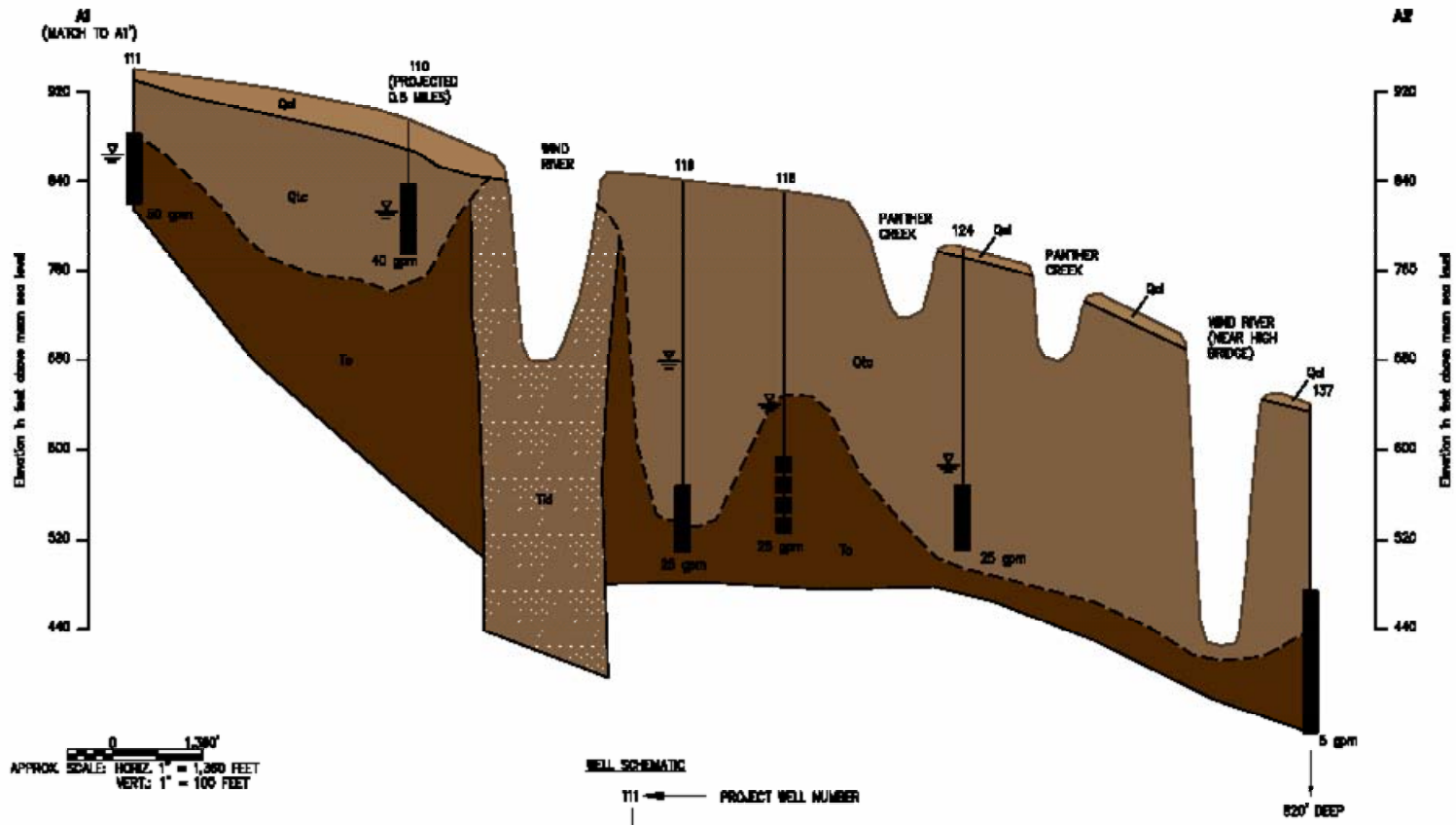


Hydrogeology of the Middle Wind River Basin, Skamania County



Interpretive Geologic Cross Section A1-A1'

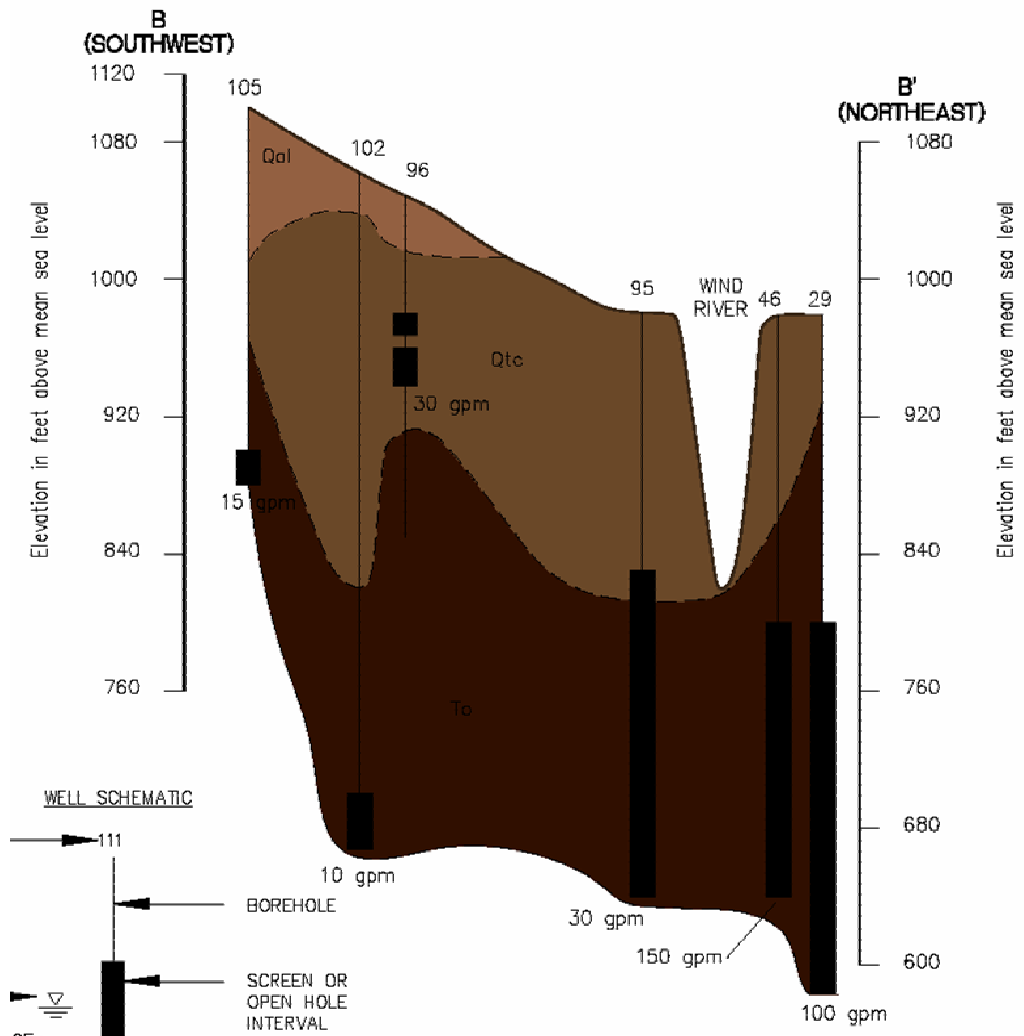
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Interpretive Geologic Cross Section A2-A2'

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Interpretive Geologic Cross Section B-B'



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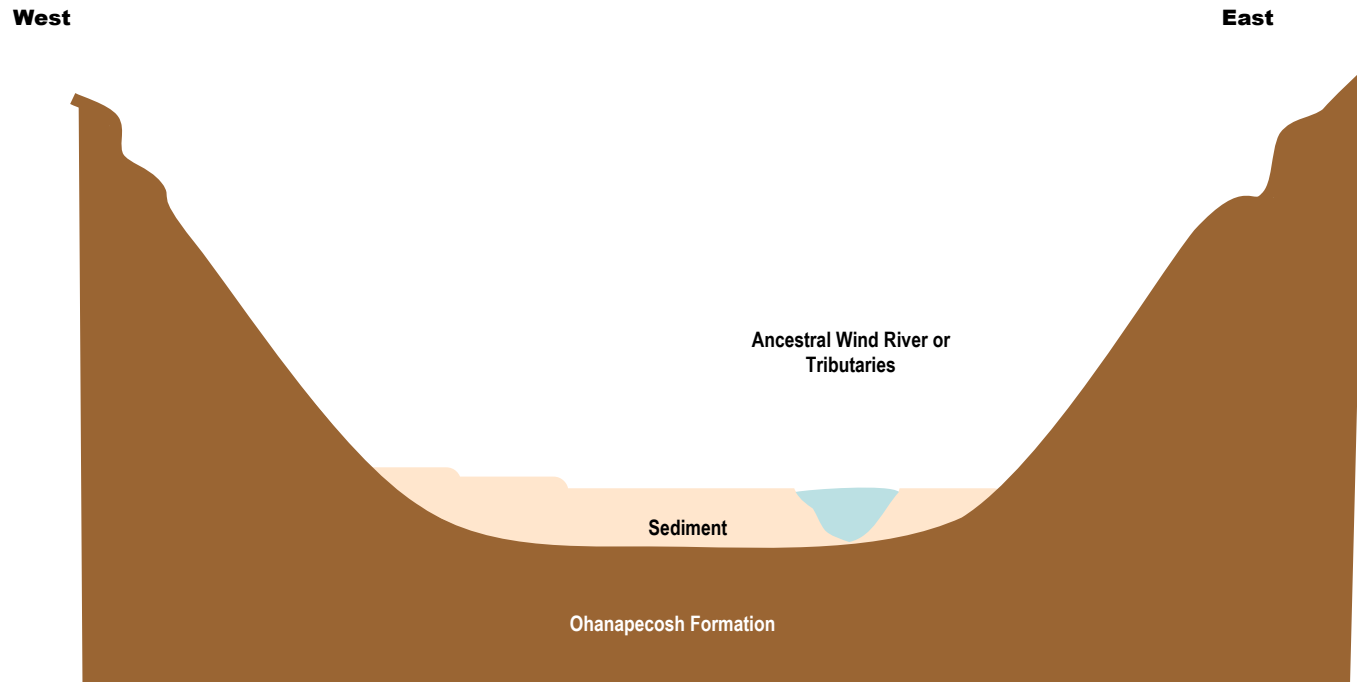


Figure 13a: Deposition of sediment above the Ohanapecosh Formation prior to TCH Basalt flows.

Hydrogeology of the Middle Wind River Basin, Skamania County

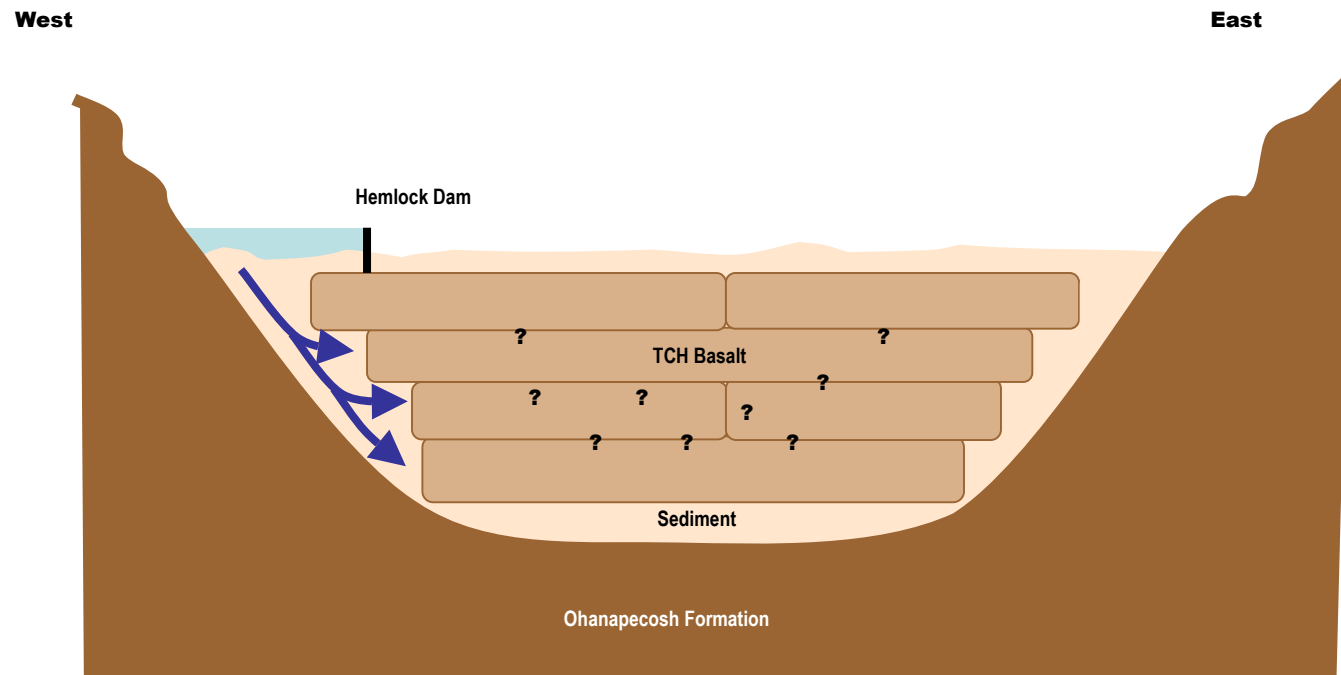


Figure 13b: Emplacement of the TCH Basalt layers and Quaternary alluvium providing recharge pathways.

Hydrogeology of the Middle Wind River Basin, Skamania County

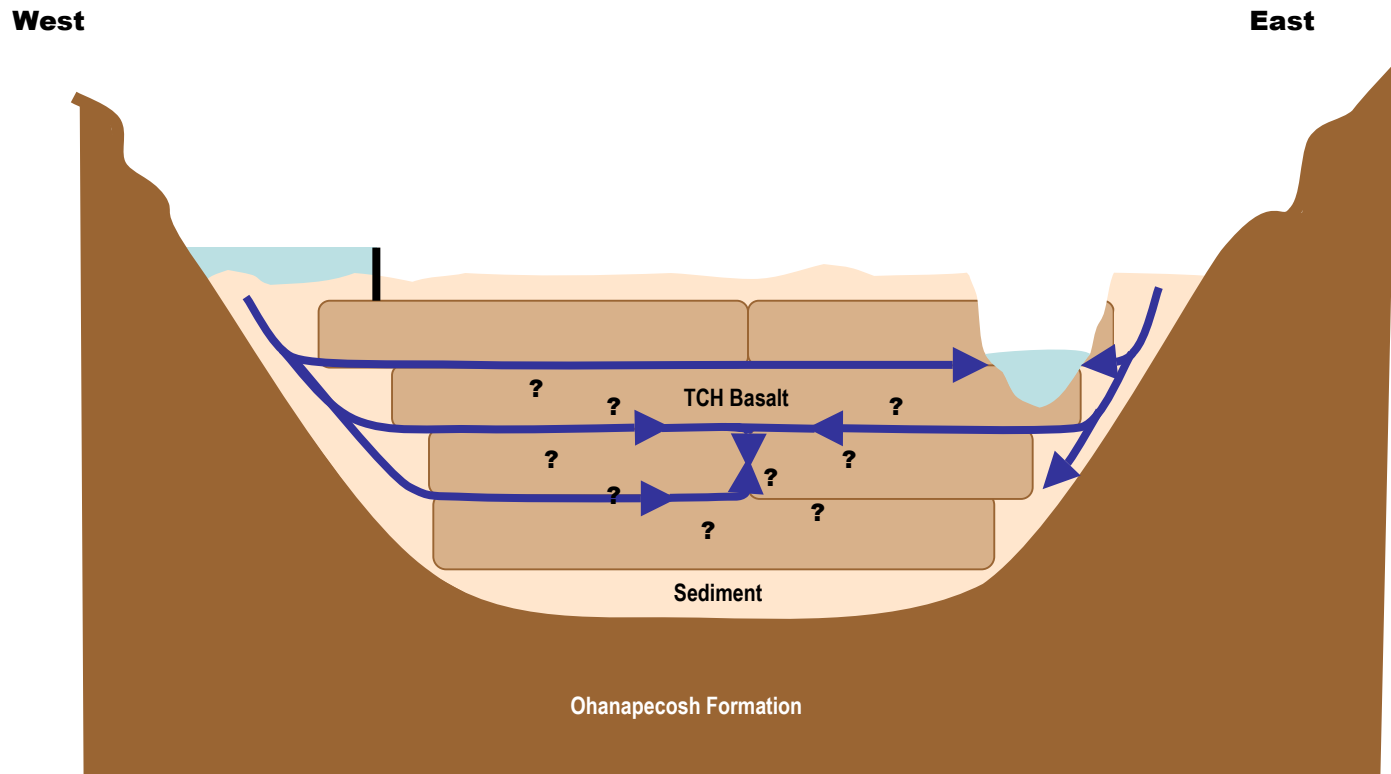
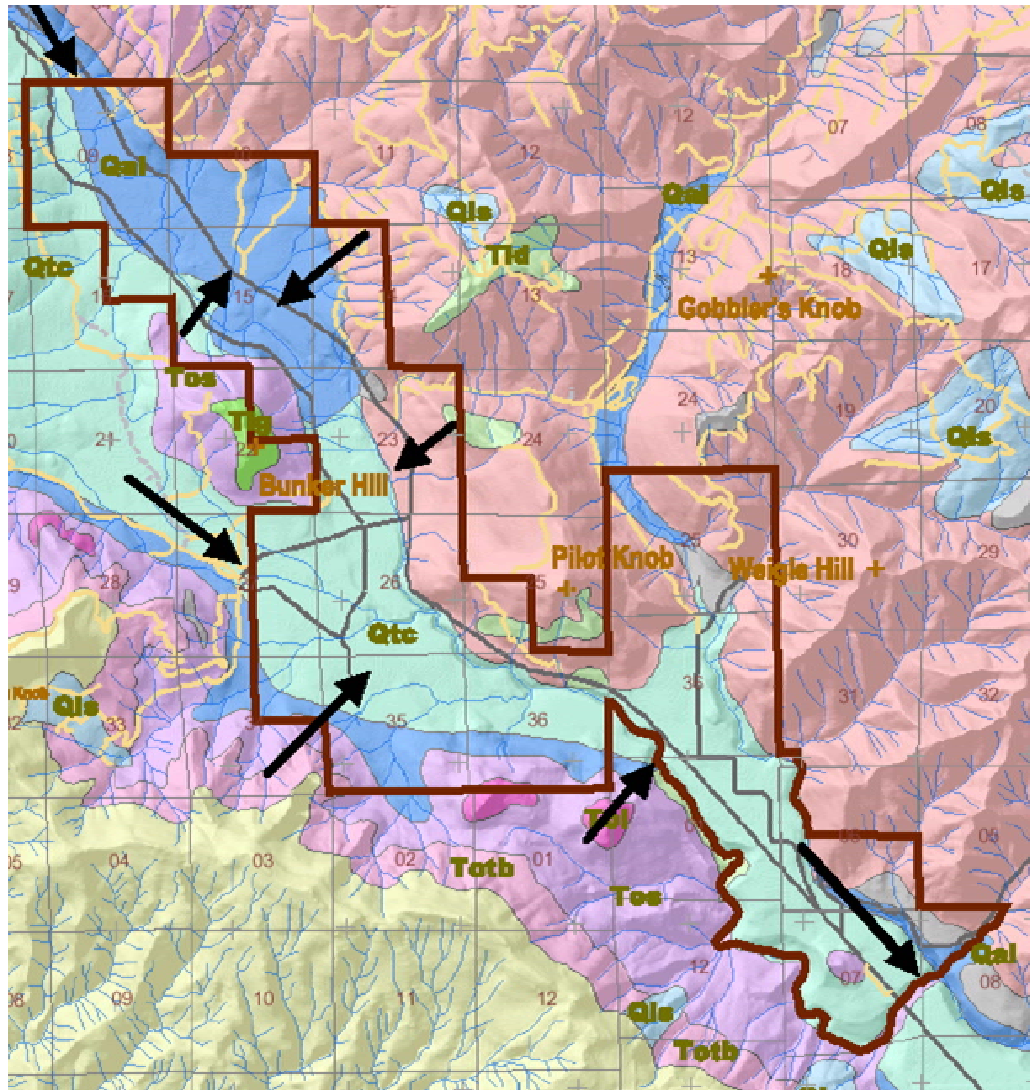


Figure 13c: Interpretive Study Area hydrogeology.

Hydrogeology of the Middle Wind River Basin, Skamania County



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1911 photo – Present location of Hemlock Dam

Hydrogeology of the Middle Wind River Basin, Skamania County

Conclusions:

- υ **TCH is the main aquifer in area, susceptible to overpumping**
- υ **Water Quality in the Study Area is good**
- υ **Qal is main recharge zone**
 - ⌘ **Will require wellhead protection**
- υ **TCH aquifer water quality not as susceptible to degradation as Qal**